

ABSTRACT

The objective of the present invention is to produce a novel (R)-2,3-butanediol dehydrogenase useful for the production of ketones, alcohols, and particularly optically active vicinal diols. It has been found that *Pichia angusta* produces novel (R)-2,3-butanediol dehydrogenase that shows the high activity and high stereoselectivity. Further, polynucleotide encoding this (R)-2,3-butanediol dehydrogenase was cloned, and the nucleotide sequence thereof was determined. The expression of the glycerol dehydrogenase was carried out in heterologous microorganisms.